

ART. I.—*The Oceanic Languages Shemitic :*

*The Personal Pronouns.*

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1. "THE vast and perfectly well-developed family, the Malay-Polynesian . . . is divided (Friedrich Müller) into three great branches—1. The Malayan, filling on the one hand the great islands nearest to Asia, and on the other hand the Philippine and Ladrone groups; 2. The Polynesian, in most of the smaller groups, with New Zealand and Madagascar; 3. The Melanesian, of the Fijian and other Archipelagoes off the north-eastern corner of Australia." Thus Whitney, "Life and Growth of Language," p. 242 (International Scientific Series, London, 1880). I should prefer calling this family the Polynesian, but as that name has already been used in a more limited sense, it may be more convenient to call it the Oceanic, at any rate for the present. As to the subdivision of the family into these three groups, it seems better to take the Malagasy as a separate or fourth group, for there are many dialects of it, and it is at least as much akin to the Malayan or the Melanesian as to the "Polynesian." On the whole it is most akin to the Melanesian. This latter name is not unobjectionable, and Papuan is preferable. "Polynesian," as here limited to the few scattered islands stretching from New Zealand to Hawaiia, is totally indefensible; those islanders who speak this group of dialects are far fewer than either the Papuans, Malagasy, or Malayans, and it is misleading and inconvenient to call them, the fewest of the Oceanians or Polynesians, exclusively by this name. We shall use instead, for the present at least, the name Maori-Hawaiian. Thus we have—Family, Oceanic or Polynesian; sub-groups, 1. Malagasy, 2. Malayan, 3. Papuan, and 4. Maori-Hawaiian.

2. As to the four Oceanic groups, I may mention that I shall take the Ankova dialect of Madagascar, the Malay of Marsden and Crawford, the Fatese and the Samoan to represent the Malagasy, Malayan, Papuan, and Maori-Hawaiian respectively, making use, of course, of the kindred dialects. The authorities, grammars, and dictionaries for

the Malagasy, Malayan, and Maori-Hawaiian groups are numerous and well known, and it is to them I am indebted for my facts. The fourth group, the Papuan, is not so well represented in grammars and dictionaries (indeed, only two dialects, the Fijian and Aneiteumese, can as yet boast of such works), but to make up for that it is the group with which I am personally and very intimately, by years of long and daily study and use, acquainted. I have chosen the Fatese simply because I know it best. Much the best general works on the Papuan languages known to me are the two volumes of Gabelentz, "*Die Melanenischen Sprache*," Leipzig, 1860 and 1873. In the second of these volumes will be found a very brief notice of (a dialect of) Fatese spoken on the south side of Fate ("*Die Sprache der Insil Fate*"), and a longer notice of another dialect of Fatese spoken on a neighbouring island ("*Die Sesake-Sprache auf Api*"). For the islands in the New Hebrides on which there are mission stations, I am indebted to the missionaries for information; and for the others, and some dialects even of these, I have nothing but the knowledge obtained at first hand from the native speakers of these dialects themselves.

3. *O* in Malagasy is sounded as *u* in the other dialects; *g* in Fatese and Samoan is sounded as *ng* in Malay and Malagasy. The inverted comma in Samoan represents "a sound something between *h* and *k*."

4. The Oceanic pronouns are found, *e.g.*, in Fatese (see Gabelentz on the "*Sesake*," as above) as separately used, the separate pronoun; as used only with a verb, forming the personal inflection of the verb, the verbal pronoun; as following and being the object of a verb, the verbal suffix; and as following a noun and expressing the genitive or possessive, the nominal suffix. The Oceanic pronoun has no inflection of gender or of case, but it has an inflexion of number. The Fatese, for instance, and Samoan have a singular, a dual, and a plural.

5. The Oceanic pronouns *I*, *Thou*, and *He* are in their simplest form—

<i>I</i>	<i>ku</i>	.
<i>Thou</i> ,	<i>ka, ta</i>	( <i>k</i> and <i>t</i> interchanged)
<i>He</i>	<i>i</i> or <i>e</i>	

The last is also demonstrative, in Fatese, meaning *this*. These pronouns sporadically are found used in this naked form in Oceanic, but generally they are in forms much dis-

guised by phonetic change or contraction, and by the addition of demonstratives or emphatic particles usually prefixed but sometimes also suffixed. Often, too, the plural is found in use for the singular, and in many dialects the singular of the second person as simple *Thou* is never used, but only the plural *You*.

6. There are two plural endings by which these pronouns become We, You, and They, *m* and *u*, thus—

I	<i>ku</i> (Malay)	We	<i>kum</i> (Eromanga)
Thou	<i>ka</i>	You	<i>kam</i> (Api)
	Malay	We	<i>kami</i> , You <i>kamu</i>
	Fate	We	<i>agam</i> , You <i>kumu</i>

The third person originally was He *i*, They *im*, but *im* as actually found in use has usually dropped the *i*, and has some emphatic suffix to the *m*—Ambrym *mu*, They. In Maori it is found in the plural interrogative *wai ma?* Who-they? (*wa-i*, singular, Who-he? and *wa-ima*, plural, Who-they?). So Fate *sē?* (for *se-i*) sing., and *semai?* and *semani?* plural, in which final *i* and *ni* are emphatic.

7. It is rare, however, to find this pronoun in Oceanic used for They. There is instead almost universal a word (properly These, or Those), which we find in Aneiteum as *ara*, Tanna as *iraha*, *ilia*, and *ila*, Eromanga as *irora*, *lël*, and *yoril*, in Maori-Hawaiian as *la* and *ra*, in Malagasy in *izareo*, and in Tagala in *sila* (*sia* He, *sila* They): Fate, *nara*. These are all one and the same, the *l* and the *r* being mere phonetic variations of each other.

8. The Fatese uses the plural ending *m* with the separate pronouns, § 6, and the plural ending *u* with the verbal pronouns, thus—

I	<i>a</i> (for <i>aku</i> or <i>ku</i> )	We	<i>au</i>
Thou	( <i>ka</i> , Api)	You	<i>ku</i>
He	<i>i</i> or <i>e</i>	They	<i>iu</i> or <i>eu</i>

Fatese *ku*, You, is used also for Thou. These are the only two numeral inflections of the plural of the Oceanic pronouns. The *m* inflection has been completely lost in the Ankova dialect of Malagasy, where the *u* also has become *y* (or short *u*) for the most part. There can, I think, be little question that the *u* is a mere phonetic variation of the *m*.

9. The Inclusive.

This is a combination of the pronouns of the first and second persons. Thus Malay and Tagala *kita*, Fate *akit*,

Fotuna (Maori-Hawaiian) *akitea* or *akita*, is *ki* (for *ku*), I, and *ta*, Thou. Malagasy *kia* (in *isikia*) is for (*kiha*) *kika ki* I, as in Malay, and *ka* Thou ; and it is to be compared with Bauro (Papuan) *gia*.

This syntactical combination, which we shall call by the usual name of the Inclusive, is found much disguised and corrupted in various dialects, and either of its component elements (I or Thou) may be found in a particular dialect *alone*, representing the whole. In Fatese the second number (Thou) is used *alone*, but only as the verbal pronoun ; and this gives us, as will be seen, a form of the pronoun of the second person in the three numbers—singular, dual, and plural.

#### 10. The Dual.

The dual ending is *a*. It is found in Fatese, not in the separate, but only in the verbal pronoun, thus—

Third plural (South dialect)	<i>ru</i> , They
Third dual	<i>ra</i> , They two

And so exactly (see § 9).

Inclusive plural	<i>tu</i>
Inclusive dual	<i>ta</i>

The Samoan dual is—

Third dual	<i>la</i>
Inclusive dual	<i>ta</i> , as the Fatese
First dual	<i>ma</i> , wanting in Fatese

The *a* is a true dual inflection or ending in these Fatese verbal pronouns : the *a* of the Fatese and Malagasy numeral *rua*, Samoan *lua*, Malay *dua*, Tongan *ua*, 2, is this same *a*.

Most of the Oceanic dialects have this dual ending only as found in this numeral.

11. Hitherto we have been occupied with the inflexional endings of the Oceanic pronoun, whose original or simple form we have also seen. It is seldom, however, we find the pronoun in its simple form. Thus the pronoun of the first person *ku* is found in Malay as *aku*, Malagasy as *aho* and *izaho*, in Samoan as *a'u*, and in Fate as *au* and *a*. The most common and influential demonstrative found attached to *ku* is *n* (as *ana*, *in*, *na*, *ni*, &c.)—thus Fate *nau* (for *naku*), verbal suffix *ki nau*, separate pronoun ; verbal pronoun *a* (for *aku*), nominal suffix *gu* (for *ku*, Malay *ku*, Malagasy *ko*). In one dialect of Fatese the verbal pronoun is *ni* (for *naku*), and the nominal suffix *ga* (for *ku*). Compare the Papuan generally in Gabelentz. Thus we see that



the real kernel of the pronoun (*ku*) sometimes almost disappears, and is found represented either by a pure contraction of itself alone as *a*, I, or a mixed contraction of itself and prefixed demonstrative *n*, as *ni*, I. Still keeping to the Fateese, we find for the plural in one dialect *nikam*, We (for *niku* and *m*), in another *ki nami* (for *ki naku* and *m*), in a third *agam* (for *aku* and *m*), and in a fourth *komam* (*koma*, the plural, and *m* emphatic). In the first two *n* appears, but not in the last two. Exactly so in Malagasy, where, however, the *n* appears only in the plural, thus separate pronoun, *izahay*, We (*ahay* for *aku*, and *u* plural ending), and nominal suffix *nay* (for *naku* and *u*, as Fate *nami* is for *naku* and *m*).

## 12. Relationship.

In affirming that the Oceanic pronoun is Shemitic, I use the words as they are used when it is said that the Arabic is Shemitic, by which, of course, it is not meant that the Arabic is derived from the Hebrew or Phenician, but from the same mother-tongue as the Hebrew and Phenician.

13. First, then, the simple or original Oceanic pronouns given above, § 5, of the first, second, and third persons, are purely Shemitic. Thus (see the standard grammars—*Hebrew, Arabic, Ethiopic, Assyrian*, especially Dillmann, "Grammatik der Ethiopische Sprache," § 65) in the Shemitic—

I	is	<i>ku</i> or <i>ki</i> ( <i>u</i> and <i>i</i> interchanged)
Thou	<i>ta</i> , <i>ka</i> ( <i>t</i> and <i>k</i> interchanged)	
He	is	<i>u</i> ( <i>i</i> in verbal pronoun)
(She	is	<i>i</i> )

The last (*u*) alone is apparently slightly differently pronounced in Oceanic, as *i* or *e* or *y*, as in English *county*; but see this accounted for below, § 24, note *a*.

Again, the *m* and *u* plural endings or inflections of these Oceanic pronouns, §§ 6, 8, are purely Shemitic. Thus (see Green, *Hebrew Grammar*) there was originally a Hebrew plural of the first person.

We	<i>anum</i>	(but now found only as <i>anu</i> )
Ye	<i>atem</i> , Hebrew ( <i>kemu</i> , Eth. verbal pronoun)	
They	<i>hum</i> , <i>humu</i> , Arabic	

Compare with these—

We	<i>anam</i> , Espiritu Santo (cf. Fate above)
Ye	<i>itama</i> , Tanna, Weasisi dialect
They	<i>eovu</i> , Anudha, <i>mu</i> Ambrym

And again—

1. We *nu*, Hebrew verbal pronoun, and nominal suffix
2. Ye *tu*, Mod. Arabic verbal pronoun
3. They *u* (for *iu*) Heb. verbal pronoun (compare *i-u*, with imperfect)

Compare with these—

1. *nay* Malagasy nominal suffix
2. *tu* Fate verbal pronoun, §§ 9, 10
3. *iu* Fate verbal pronoun, and *u* (for *iu*), Paama verbal pronoun

14. These *m* and *u* plural endings are, both in Oceanic and Shemitic, in reality one and the same, the *u* being a mere phonetic variation of the *m*. In Fatelese *m*, especially final *m*, is often changed into *u*. As to the modern Arabic *entu*, Ye (for *entum*), compare Aneiteum separate pronoun *aijaua*, Ye (for *aitaua*, for *aitama*, Tanna *itama*, Api *tau*), verbal suffix *caua* (for *cama*), Mod. Arabic *kum*. Note also in these examples the interchange of *t* and *k*.

15. The Dual ending *a*.

As to the Shemitic (see standard grammars), the ancient Arabic is the only dialect that has retained the dual of the separate and suffix pronoun of both the second and third persons (the Sabaeen retaining that of the latter only), while only the Sabaeen and Assyrian (third person only), along with the Arabic (second and third persons only), have retained it in the verbal pronoun. The Ethiopic has lost every trace of it, except what remains in the ending of one word, the numeral 2; and the Syriac retains a trace of it in the endings of three words only—the words *two*, *two hundred*, and *Egypt*.

The Assyrian dual ending is *a*. In the Assyrian *isaccinaa*, They two place, *i-a* is the verbal pronoun; so in the Arabic *igtulaa*, *i-a* is the verbal pronoun dual, They two; and in the Arabic *taktulaa*, *ta-a* is the verbal pronoun, Ye two. Now the Fatelese has the inflectional dual of the verbal pronouns of the second and third persons only, like the Arabic, and that of the second person is only retained in the inclusive *ta* (Samoan *ta*), §§ 9, 10, which has the very same elements as this Arabic *ta-a*. That of the third person *ra* (Samoan *la*), They two, has the dual ending attached to the demonstrative *r*, just as in the Arabic

*gatalta*, the final *ta*, They two (fem.), has it attached to the (feminine) demonstrative *t*.

The Samoan has retained in *ma*, We two, the dual of the first person also.

16. The Arabic separate pronoun has the dual thus—

Third person *hum*, plural; *huma*, dual

Second person *antum*, plural; *antuma*, dual

In the Mallicollan dialect in Gabelentz the dual inclusive is *drivan*, having the same meaning and use as the Fatese *ta*; the Mallicollo *dr* is the Fatese *t* representing the pronoun of the second person, as already shown. Therefore *van* = two = dual ending; "*van für zwei scheint aus dem zahlwort *ua* abgeleitet*," says Gabelentz, nearly hitting the exact truth. Now, as we compared Fatese *ta* with Arabic *ta-a*, in *taqtulaa*, so we must compare Mallicollan *drivan* (*tivan*) with Arabic *tuma*, Ye two, in *qataltuma* (*m* and *v* interchanged). Thus *drivan* is to be compared also with the well-known Maori-Hawaiian *taua*, just as Fate *ta* with Samoan *ta*. If this is correct, then *ua*, the numeral 2, in Mallicollan and Tongan, is to be compared with the Arabic *huma* or *homa*, They two: Fate *rua*, 2, is this *ua* with demonstrative *r* prefixed (as in the verbal pronoun *ra*, They two, and so Malagasy *rua*, Samoan *lua*, Malay *dua*). That this is, in fact, the true origin of the Oceanic numeral 2 is, I think, certain: further discussion of that particular point will come properly under the Numerals. But it may be said here that just as we find *-va-* for *ua* in this Mallicollan pronoun, so in the Tagala numeral 2, as given by Forster, it is *va*, for he gives it as "*dalava* or *dalova*" (compare Ceram *darua*). It goes without saying that *ua* is from *va*, not *va* from *ua*, and that *va* is the older form. The word *ua* is pronounced in Oceanic, and might have been written, as it sometimes is, *wa*. The change of *m* to *v*, *w*, and *u* is one very common in Shemitic, and especially in Oceanic.

17. The separate pronoun, the verbal pronoun, the verbal suffix and nominal suffix are all used in Shemitic exactly as in Oceanic. But the verbal pronoun in Oceanic has only one form for all tenses, and is never divided, as in the Shemitic imperfect. The essential thing is that it is a short representative of the separate pronoun, having the same component elements, and denoting in the same way the person and number of the verb (without which it cannot be used), as in the ancient Shemitic.

## 18. Comparison. The Pronoun of the First Person.

## Separate Pronoun, Singular.

Aneiteum, <i>ainyak</i>	Phenician, <i>anek</i>
Fate, <i>kinau</i> (for <i>ki naku</i> )	Assyrian, <i>anacu</i>
Api, <i>nangka</i> ( <i>naka</i> )	„ <i>anku</i>
Bauro, <i>inau</i> ( <i>inaku</i> )	Hebrew, <i>anoki</i>
Esp. Santo, <i>nau</i> ( <i>naku</i> )	
Malay, <i>aku</i>	
Samoa, 'o <i>a'u</i> ( <i>ko aku</i> )	
Malagasy, <i>izaho</i> ( <i>iz ako</i> )	
Lifu, <i>eni</i>	Hebrew, <i>ani</i> ( <i>anoki</i> )
Ambrym, <i>ni</i>	Ethiopic, <i>ana</i> ( <i>anaku</i> )
Mallicollo, <i>kena</i> ( <i>k ena</i> )	Arabic, <i>ana</i> (for <i>anaku</i> )

## Verbal Pronoun.

Esp. Santo, <i>ka</i>	Ethiopic, <i>ku</i>
Aneiteum, <i>ek</i>	
Mahaga, <i>ku</i> (cf. Malay <i>ku</i> )	
Tongan, <i>te</i>	Hebrew, <i>ti</i> ( <i>t</i> for <i>k</i> )
Fate, <i>a</i>	Arabic, &c., <i>a</i>
Tanna, <i>ya</i>	
Mallicollo, <i>ni</i>	Mod. Syriac, <i>in</i>

## Nominal Suffix.

Fate, <i>gu</i>	
Malay, <i>ku</i>	
Malagasy, <i>ko</i>	
Esp. Santo, <i>u</i>	Hebrew, &c., <i>i</i>
Laman (off Api), <i>o</i>	Assyrian, <i>ya, a, and i</i>

## 19. Plural.

## Separate Pronoun.

Esp. Santo, <i>anam</i>	Hebrew, <i>anu</i> ( <i>anum</i> )
Fate, <i>kinami</i>	
Fate, <i>nigami</i> ( <i>nikumi</i> )	
Malay, <i>kami</i>	
Malagasy, <i>iz-ahay</i> ( <i>aku-u</i> )	
Lifu, <i>nihunie</i>	Arabic, <i>nahnun</i>
Lifu, <i>eahuni</i>	Mod. Syriac, <i>ahhni</i>
Mallicollo, <i>kon</i> ( <i>riti</i> ) (dialect of Sasoon Bay, east side)	

Verbal Pronoun.

Mallicollo (Port Sandwich),	Hebrew, <i>ne</i>
<i>ne</i> (ti)	
Api (Mission Station),	<i>ni</i> Arabic, <i>na</i>
	Assyrian, <i>ni</i>
Fate, <i>au</i> (aku-u)	Mod. Syriac, <i>ak, ik</i>
Mahaga, <i>ki</i> (ti)	

Nominal Suffix.

Malagasy, <i>nay</i>	Assyrian, <i>nu</i> , and <i>ni</i>
Fate, <i>namî</i>	Arabic, <i>na</i>
	Syriac, <i>n</i> .

20. The Pronoun of the Second Person.

Separate Pronoun, Singular.

(Note.—The plural used *often* for singular.)

Api, <i>tau</i> ( <i>ta</i> , and pl. ending <i>u</i> )	Hebrew, <i>atta</i> (for <i>an-ta</i> )
Yengen, <i>do</i> (for <i>dau</i> )	
New Caledonia, <i>to</i> (for <i>tau</i> )	
and ( <i>k</i> for <i>t</i> )	
Tagala, <i>ikau</i>	Hebrew, &c., old form <i>akka</i> (for <i>an-ka</i> )
Malay, <i>angkau</i>	
Mall., <i>ainka</i> (for <i>ainka</i> )	(See Gesenius, <i>Gram.</i> )
Eromangan, <i>kik</i>	Harari, <i>akhakh</i>
Fate, <i>ag</i> ( <i>ak</i> )	
Aneiteum, <i>aiek</i>	
Tanna, <i>ik</i>	Tigre, <i>ika</i>
Negrito, St. Matheo, <i>hica</i>	Tigre, <i>niska</i> (is <i>nisu</i> This, <i>ka</i> Thou)
Lubu (aborigines of Su- matra), <i>aka</i>	
For <i>ta</i> ( <i>t</i> for <i>k</i> ), Thou, in Oceanic, see Inclusives below.	

The Verbal Pronoun.

Api, <i>ka</i> (cf. Malay, <i>kau</i> , <i>ka-u</i> )	Ethiopic, <i>ka</i>
Mallicollo, <i>ke</i>	Sabaeen, <i>ka</i>
Fate, <i>ku</i> (plural for singular)	



## The Verbal Suffix.

Fate, <i>k</i>	Heb., Arabic, Ethiopic, As-
Mall., <i>k</i>	syrian, Syriac, <i>k</i> , <i>ka</i>
Paama, <i>k</i>	
Aneiteum, <i>euc</i>	Mod. Syriac, <i>uk</i>
Fate, <i>ko</i> (for <i>kau</i> ; cf.	
Malay, <i>kau</i> ) is plural	
for singular	

I give the following in this person alone, and in the singular:—

## The Emphatic Possessive.

Eromangan, <i>arika</i>	Ethiopic, <i>eliaka</i>
Samoan, <i>lau</i> (laka-u)	
Eromangan, <i>eteko</i>	Mod. Syriac, <i>diuk</i>
Maori, <i>tau</i> (taka-u)	
Tanna, <i>seik</i>	Ethiopic, <i>ziaka</i>
Samoan, <i>sau</i> (saka-u)	

All these prefixes are originally demonstratives, and all these words mean *this* or *what* (is) *of thee*, *thine*.

## The Suffix with a Preposition.

Eromangan, *buka*, To thee Hebrew, *beka*, To thee

## 21. The Plural, Ye.

(Note.—The majority of Oceanic dialects have the plural with ending *u* (*tau*, *kau*, *to*, *ko*) in use for the singular (cf. English *you*), and the plural with ending *m* in use for the plural. The Malagasy having ceased to retain the *m*, suffixes *reo* (these), to distinguish the plural used for *ye* from that used for *you*.)

## The Separate Pronoun.

Tanna (Weasisi), <i>itama</i> , or	Hebrew, <i>attem</i>
<i>ituma</i>	Arabic, <i>antum</i>
Aneiteum, <i>aijaua</i>	Mod. Arabic, <i>antu</i>
Api, <i>tau</i>	
And <i>k</i> for <i>t</i>	
Malay, <i>kamu</i>	Ethiopic, <i>antemu</i>
Fate, <i>kumu</i>	(Hebrew, <i>attem</i> )
Fate, <i>akam</i>	
Fate, <i>nikam</i>	
Negrito, St. Matheo, <i>hicamu</i>	

Eromangan, *kimi*  
 Fotunese, *akaua*  
 Tagala, *kayu*  
 Fate, *egū*  
 Duauru, *inggu*

Verbal Pronoun.

Fate, <i>ku</i>	Heb. &c., <i>t-u</i>
Fate, <i>tu</i> (in Inclusive)	Mod. Arabic, <i>tu</i>
Malay, <i>kamu</i> (Sep. Pron.)	Eth., <i>kemu</i>
	Heb., <i>tem</i>

Nominal Suffix.

Malay, <i>kamu</i>	Ethiopic, <i>kemu</i>
Fate, <i>kam</i>	Heb., <i>kem</i>

(Often contracted in Arb., *kum*

Malay, Fate, &c., to *mu*,  
*ma*, *m*, and used for  
 singular like English  
*your*)

22. The Inclusive.

Malay, *kita*, (*ki* I, *ta* Thou) For *ki* I, and *ta* (*ka*), Thou,  
 Fate, *akit* see §§ 18, 20

Fotuna, *akita*

Malagasy, *isikia* (is-ikia,  
 see § 9)

Bauro, *gia*

Ambrym, *kenga* (for *keka*)

This combination is found as in all languages so in the Shemitic. See Caussin de Percival, *Grammaire Arabe Vulgaire*, § 223, who gives these two forms of it: "*ana ou ente*" and "*ana ou eyyak*," I and Thou—that is, *ana* I, *ou* (pronounced *u*), and *ente* (*enta*) or *eyyak* (*eyyak*), Thou. Now note (*a*) that the *and* is vulgarly left out in Oceanic, and (*b*) that *ente* or *enta* as it drops the *n*, for instance, in Hebrew, so in Oceanic this *nt* is *t*. The *n* is mere emphatic prefixed to *t* the pronoun.

Santo, *nitsi*, *inti* Arabic, *ana* (*ou en*)*te*

Aneiteum, *inta* (verbal  
 pronoun)

Mall., *anre* (for *ante*), as For *ni*, I, see § 18

Fate dialect, *igira* for  
*igita*

Lifu, *nisha* (for *nita*, as  
Eromangan *kos*, Tanna  
*kita*)

In Malay, Maori-Hawaiian, and Papuan *ta* is generally used for Thou in this combination, and not *ka*; but Hawaiian does not distinguish between *t* and *k*, and has only one letter (*k*) for both.

Most of the Maori-Hawaiian dialects have lost the first member of the phrase (*ki* or *ni* I), and have only the last *ta* (Hawaiian *ka*) Thou. Fate uses only this last as the verbal pronoun, thus

Dual	<i>ta</i> (literally, <i>Ye two</i> )
So Samoan	<i>ta</i>
Plural	<i>tu</i> (literally <i>Ye</i> ),
So Tongan	<i>iau</i>

### 23. The Pronoun of the Third Person.

#### Separate Pronoun, Singular.

Malagasy, <i>izy</i>	Assyrian, <i>su</i>
Malay, <i>iya</i>	Hebrew, <i>hia</i> (fem.)
Tongan, <i>aia</i>	<i>hua</i> (mas.)
Fate, <i>nai</i>	
Samoan, 'o <i>ia</i>	
Fate, <i>enea</i>	Talmud, <i>enhu</i>
Malay, <i>inya</i>	
Tagala, <i>sia</i>	Assyrian, <i>si</i> (fem.)
Negrilo, Umiray, <i>edu</i>	Ethiopic, <i>uētu</i>
New Caledonia, <i>iet</i>	
Aneiteum, <i>aien</i>	Mod. Syr., <i>aon</i>
Tanna, <i>in</i>	„ <i>ain</i> (fem.)

#### The Verbal Pronoun.

Fate, &c., <i>i</i> or <i>e</i>	Heb., &c., <i>i</i>
Aneiteum, <i>et</i>	Arabic, <i>t</i> (fem.)
Mallicollo, <i>ni</i> , or <i>ne</i>	Syriac, <i>ne</i>

#### The Verbal Suffix.

Fate, <i>i</i> , <i>e</i> , or <i>ia</i>	Heb., &c., <i>u</i>
	Chald., <i>eh</i>
	Syr., <i>i</i>
Malay, <i>nia</i>	Heb., <i>ennu</i>
Fate, <i>na</i> , <i>nia</i>	Heb., <i>na</i>



b. But while the Oceanic has dropped or lost the inflection of gender in the personal pronouns of both singular and plural, the Modern Syriac has dropped or lost it only in those of the plural.

c. *Ani* means Those as well as They.

d. *Ani*, though plural, is sometimes used for the singular in Mod. Syriac.

So Malay *nia*, Malagasy *ny*, are both plural and singular as nominal suffix.

## 25. The Verbal Pronoun.

Fate dual	<i>ra</i>	§§ 8, 10, 13
„ plural	<i>ru</i>	
Samoan dual	<i>la</i>	
Tongan plural	<i>nau</i>	

## The Verbal Suffix

(in most dialects calls for no remark, but the following is very remarkable)

Api, *tomiako* (cf. singular *teteako*), *ako* like *aki* in Anudha *eovu aki* (see Separate Pronoun) is emphatic.

Api, *tomi* (*ako*)

Tigre, *tome*

Eth., *homu* (for *tomu*); Dillm.,

Gr., § 149)

26. Briefly and inadequately as this extensive subject of the Pronouns is handled in the foregoing, it is much more full than the section on the same subject in a former paper (1883), which also, as may be noted, is hereby corrected in certain particulars.

## II. THE NUMERALS.

(With an Appendix on the Australian Numerals.)

§ 1. The Oceanic numerals cited in the following may nearly all be found in the lists of Crawford ("Dissertation"), Latham ("Comparative Philology"), H. Gabelentz ("Die Melanenischen Sprachen"), and the "Erster Nachtrag" to that work, of G. Gabelentz and Meyer (Leipzig, 1882), Wallace ("Malay Archipelago"), and Turner ("Samoa," 1884). The few here printed for the first time belong exclusively to the New Hebrides, and are of purely dialectical value.



§ 2. A glance at the numerals of these lists (I omitted to mention those in the "Appendix" to *Cook's Voyages*) shows that there is sometimes attached to them, prefixed or postfixed, or both, the following demonstratives as articles or emphatics:—

1. *l*, as in Samoan *lua* (Tongan *ua*), 2, and Samoan *lima* (Redscar Bay *ima*, Tongan (Forster) *neema*, Pelew *aim*), 5. Compare Mangarei *lotitu*, *lopah*, 3, 4. This *l* is changed into *r*, as in Fate *rua*, 2, Maori *rima*, 5, and *d*, as in Malay *duwa*, 2, and Malagasy *dimy*, 5.

2. *n*, as Abtiago (Ceram) *entol*, *enhata*, *enlima*, and, suffixed, Bouton (Celebes) *taruono*, *patanu*, *limanu*, 3, 4, 5. Malagasy *enina*, Bugis *onong* (*n* to *ng*), 6, Malay *sambilan*, Sumatra *sekurung*, Java *sanga*, 9.

3. *m*, Espiritu Santo *mokes*, *morua*, *morolu*, *motar*, *molima*, 1, 2, 3, 4, 5. Tidore *malofo*, 2, Celebes *mopuroh*, Salibabo *mapuroh*, 10.

Sometimes changed to *p*, *b*, and *v*, *He* and *We*. Guebe *piffat*, *pileme*, Marquesas *bo ha*, *bo heema*, 4, 5. Isle of Pines *vo* (for *v-ua*), *veti*, 2, 3, as Duauru *bo*, *beti*, *beu*, 2, 3, 4. Yengen *heluk*, *nimweluk*, 2, 7.

Suffixed we find it in—

Umar	<i>kotim</i>	1
"	<i>etirom</i>	3
New Ireland	<i>balam</i>	4
Malay	<i>anam</i>	6
Arru	<i>dubem</i>	7
Tagala	<i>siyam</i>	9

and changed to *p*, *v*, and *u* in Admiralty Islands *huap*, 2, Princess Island *gunnap*, Santo *merav*, 6, Sanguir *kasiow*, i.e., *kasiau*, for *kasiam*, 9.

4. *k*, Sanguir *kopah*, *kasiow*, *kapuroh*, 4, 9, 10. Sula *gahū*, *gariha*, *gatasia*, 2, 4, 9.

Postfixed we find it in Yengen *heluk*, Madagascar *rica*, 2, Malay *tiga*, Aneiteum *eseik*, 3, Mafur *fiak*, 4, *fiek*, 7, Arago (New Guinea) *sik*, 7, Karon *mik*, 5, New Ireland *suok*, 9, New Britain *tigai*, New Guinea (Forrest) *tiak*, 4.

5. *s*, and *t* (*d*), Tagala *dalova*, *tatlo*, 2, 3; Salibabo *tetalo*, *delima*, 3, 5; Malay *tuju*, *delapan*, 7, 8, and *salapan*, *sambilan*, *sapuluh*, 8, 9, 10; Papuan (Forrest) *serou*, *sioire*, 2, 9; Madagascar *sidda*, *sivy*, 7, 9; Sumatra *seewah*, Philippines, *siam*, 9.

Postfixed we find it in Sirang *delapante, sambilante*, 8, 9; Aneiteum, *ohwat*, 2; Salawatti *fiet*, 7; Tandia *roesi, toeroesi, attesi*, 2, 3, 4.

6. *a, o, e, i*, Pelew *aim*, 5; Otaheite *a eeva*, 9; Madagascar *isse, essa, eser*, Papuan of New Guinea *oser*, Arago *ossa*, Waigyou *ossa*, and *sai*, 1.

7. To be noted in the above is the use of what may be called the compound article, as Santo *morua*, Tidore *malofa*, 2; Tagala *dalova*, Ceram *darua*, 2; Santo *molima*, Salibabo *delima*, 5.

8. Full discussion of these articles must be reserved till the Demonstratives come to be specially treated. Meantime it may be observed that they are all found in Oceanic used as articles with other nouns, as well as with the numerals: for instance, the first, *l*, is the common article in Samoan; the second, *n*, is in like manner the common article in Malagasy, Fatese, and the New Hebrides (Papuan) generally. And it may be said that it is certain that they are simply demonstratives originally meaning "this." Thus in Fatese alone (in dialects) we find *n, k, s*, and *i (e)* used as demonstratives, *fatu in, fatu ke, fatu se, fatu i* (or *e*) all meaning "stone this," or, as we say in English, "this stone;" also *l* as *r* in *erai*, "this" (in one dialect), and even *m* is used as an article (before names of men), and as a final emphatic which is sometimes changed to *b, f*, and *u*. In Malagasy *ra* (for *la*) is used as an article before names of persons, and *ireo* (for *ileo*) is "these," *iroa*, "that," and we have also the *k* in *irikitra, irokatra*, "that." Compare Malay *iki* and *ini*, Malagasy *iny, itsy*, and *izao*, Samoan *sia*, "this," and Malay *itu*, "that, he, the," Malagasy *ity*, "this," and Eromangan *imo*, "this."

On the Shemitic demonstratives *l, n, t, s (d, z), k*, and *a (ha)*, see Dillmann, *Eth. Gram.*, § 62. For the Arabic article *l*, South Arabian *m*, see Wright, *Arab. Gram. I.* § 345. For Assyrian *ammu*, and *ma*, "this," see Sayce, *Assy. Gram.*, p. 60. These Oceanic and Shemitic demonstratives are held to be the same, but this is not the place for discussing that. It is sufficient here to observe that in the numerals compared, in the following, on both sides, they will be seen so far as used to be similarly used. For example, with the above final *m* emphatic compare the (Assyrian and) Sabaean "mimation" or final *m* emphatic.

§ 3. In what follows all the Oceanic numerals compared with each other, and all the Shemitic with which they are

compared are regarded on sufficient grounds as originally the same. Their present differences are accounted for by—1, phonetic change and decay; 2, the attachment, or not, to them in different dialects of the different demonstratives in § 2, in some prefixed, in some postfixed, and in some both, which demonstratives themselves both suffer and cause phonetic change and decay; and 3, these Oceanic numerals having been reduced to writing by Europeans, allowance has to be made for difference of ear, and of nationality (as affecting the alphabet) of the writer. Also in what follows *Malagasy* means the Ankova dialect, Madagascar *any* dialect in the island, as Sumatra *any* dialect in Sumatra, and so with other names of islands.

§ 4. The first five numerals in the four branches of the Oceanic family (for which see “The Personal Pronouns,” § 1) may be thus given:—

Malagasy.	Malay.	Papuan (Fatese).	Maori-Hawaiian (Samoan).
1 isa, iray, iraika	sa, asa, satu	sikei	tasi
2 roa	duwa	rua	lua
3 telo	tiga	tolu	tolu
4 efatra	ampat	bāte	fa
5 dimy	lima	lima	lima

We shall take these in order:—

1. The numeral 1 in Oceanic is in Sanguir *ku*, New Ireland *kai*, New Guinea *ketek*, Anudha *kedha*, Mysol *katim*, Santo *mokeo*, Mallicollo *bokol*, New Guinea *mele*, Pentecost *tual*, Aneiteum *ethi*, Kisa *ita*, Tanna *liti*, *riti*, *kadi*, Eromanga *sai*, Timuri *aida*, Savu *aisa*, Api *saka*, Mangarei *isaku*, Java *sigi*, Api *ta*, *tanga*, New Guinea *tika*, *dik*, Manitoto *nehi*, New Guinea *oser*, *siri*, *ossa*, Sumatra *sa*, *sado*, *sara*, *assa*, *satu*, *eso*, Ceram *san*, Gilolo *moi*, Tidore *remoi*.

Now, bearing in mind that in the above *r* is for *l*, we see that we have in these words for 1 simply the demonstratives *l*, *n*, *m*, *k*, *s* (*t*, *d*), *a* (*o*, *i*, *e*), of § 2, sometimes single, but usually two or more combined.

2. The numeral 2, Samoan *lua* (*luwa*), consists of the article *l*, and *ua* (*uwa*), 2. Thus in Tongan and Mallicollo the word is *ua* without the article, as it is also very often in Maori-Hawaiian when used with the personal pronouns to form the dual pronoun. The article *l* appears in Fatese and Malagasy in this word as *r*, and in Malay as *d*, so Bisayan *duha* (for *luha*).

The final *a* of *ua* is the ancient Shemitic dual ending or inflection; see the "Personal Pronoun," § 10, for the proof. And see the same for proof that an older form of *ua* is *uva*; seen in Mallicollo *ivan* (in *drivan*), Tagala *dalava*, *dalova*, *daluva* (Ceram *darua*), and Tidore *malofa* (Santo *morua*), 2. We have now to show that a still older form was *uma*.

In Samang *ua* is *be*, in Karon *we*, and in Tanna in the dual of nouns it is *mī*; thus "boat" (English) is *boat riti*, "one boat," *boat imi*, "two boats," in Fatese *boat erua*. The Tanna numeral 2 is *karu*. This shows how the article helps to disguise the original word: thus, suppose it was *uma*, with *r*, *uma*, *ruva*, *ruwa*, *rua*, *karu*. So in Aneiteum we have *ero* and *ohwat* (for *ova-t*) 2, New Britain *aiwut*, New Guinea (Papua Kowiay) *amoi*, *aboma*, Mair-assi *amooi*, Duauru *bo*, *po*, 2: *aboma* is article *ab* (for *am*), see § 2, and *oma*, 2, so *amoi*, and *amooi* (*amui*) is article *am* and *oi* or *ui* (*ua*, *uma*, *oma*), 2, and *bo*, *po*, is article *am* and *o* (for *ua*, *uma*, *omu*), 2. Thus the only difference between Aneiteum *ro*, Tanna *ru*, and Duauru *bo*, *po*, is that different articles are used: *r* (for *l*), and *b* or *p* (for *m*), the word for 2 being the same *o*, *u* (for *oma*, *uma*), while between *aboma* and *bo* there is not any difference of article, both words alike being by phonetic corruption from the same original *amoma* 2 (*am* article, and *oma*, 2).

The original, therefore, was *oma* or *uma*. That this is of the same origin as the ancient Shemitic dual pronoun, Arabic *huma* (cf. Savu *lhua*, 2), Sabaeen *hami*, "they-two," see "The Personal Pronoun," §§ 10, 15, 16.

3. The numeral 3. Malay *tiga* is the common Oceanic *tolu* or *tilu*, with the *l* elided, and the demonstrative *g* post-fixed, as Aneiteum *eseik*. Thus compare Malay *ti-ga*, Aneiteum *esei-k*, with Ambrym *si*, Duauru *ti*, Mallicollo *roi*, Redscar Bay *toi*, Marquesas and Api *tu*, Pelew *othay*, in all of which there is the same elision of the *l*. Java *talru*, New Guinea *tola*, Rotuma *thol*, Ambrym *sul*, Api *selu*, Sumatra *tloo*, Mangarei *titu*. In some cases both *t* (*s*) and *l* are elided, as in Eddystone *kuay*, Jower (New Guinea) *re-oe*, in which *k* and *re* are the articles.

4. The numeral 4. In Malagasy *efatra* (Madagascar *effat*) the final *t* being the same as in Malay *ampat*, Fate *bāte*, and wanting in Samoan and Maori-Hawaiian generally. In Sumatra we have *ampah*, *opat*, *mpat*, *paat*; Tagala *apat*, Malay dialect *enpa*, Sula *riha* Savu *uppah*, Cayagan *appa*,

Saparua *haan*, Celebes *patanu*, Mafoor *fum*, Api *veri*; Ambrym *fir*, New Guinea *pali*, Segaar *fala*, Onim *faat*, Ceram *aāta*, New Britain *tigai*, New Guinea (Forrest) *tiak*.

5. The numeral 5 has the same article *l* as the numeral 2, Malagasy *dimy* being for *limy*, as Malay *duwa* for *lua*. Thus the word *lima* is *l*, the article, and *ima*, 5. Compare Sumatra *liema*, Rotuma *lium*, Pelew *aim* and *ain*, Tongan *neema*, and Redscar Bay *ima*, Carolines *lib*, Lifu *tipi* (for *lipi*), Easter Island *reema* and *reena*, Eromanga *rim* and *ring*, Fenua Galaia *djini*.

There is reason to think that *ima* originally began with a guttural *k* sound. Thus the word in Aneiteum is *nikma*, Tongan *neema*. Thus *lima* may be for *likma*. This is further supported by the following.

Often in Oceanic this same word is used for "hand" as well as for 5, as Aneiteum *ikma* (for *kima*), Redscar Bay *ima*, Santo *lima*. Sometimes the same word is used for both, but different forms of it in the same dialect—thus Eromangan for "hand" has *kop* (An. *ikma*), and for 5 *rim* (for *rikma*, An. *nikma*), so Tagala *camay*, "hand," *lima* 5, Bisayan *camot* and *lima*, Kayan *kama* and *lima*, Api *ma* and *lima*, and Lifu *ime* and *tipi*.

§ 5. In affirming that the Oceanic numerals are Shemitic, it is not meant that they are derived from the numerals of the Arabic or other existing Continental dialect, but from the same original source or mother-tongue.

The Shemitic numerals with which we may legitimately compare the Oceanic are in two groups:—

1. The literary Shemitic numerals, Hebrew, Assyrian, Syriac, Arabic, Sabaean (Southern Arabic, Himyscritic), Ethiopic, Modern Syriac, Modern Arabic, Tigre and Amharic, and the Arkiko, Harar, and Sokotra numerals.

All these as to the numerals constitute but one language, so that with certain exceptions as to the words for 1 and 2, the word for the numeral in one of them represents that for the same numeral in all the others. With respect to 1 and 2, each is represented by more than one word: thus, Heb. *'aste*, Assy. *estin*, = 1, as well as the common *akhad*, and Ethiopic, which is followed in this by the Tigre, Amharic, Arkiko, and Harar, has *kelēe* for 2, all the other members of the literary group having the word which in Hebrew is *shenaim*, or *shene*.

2. The Red Sea group of Shemitic numerals, found along the western shore of the Red Sea from Cape Guardafui to



Suez in the Somaui, Galla, Danakil and Adaiel, Shiho, and Bishari.

With the question of how far these dialects, any or all of them, are Shemitic we have nothing here to do. If any of them is radically non-Shemitic, the numerals of them which are Shemitic, and with which alone we are here concerned, must have been introduced or borrowed from Shemitic vulgar dialects of which they remain to this day a true fragment.

For the numerals of the Red Sea group, see the lists of Salt ("Voyage to Abyssinia") and Latham; for those of Sokotra, Wellsted ("Travels to the City of the Caliphs," &c.); for the modern Syriac, Stoddart's Grammar.

### § 6. The Numeral 1.

Oceanic (see § 4, 1).

<i>ku, kai</i>	<i>cha</i> , Mod. Syr
	<i>k'ow</i> , Somaui
<i>kedha, kadi, keteh</i>	<i>kat</i> , Sokotra
	<i>chad</i> , Mod. Syr.
	<i>akhadu</i> , Assy.
	<i>engat</i> , Bishari
<i>aida, ita</i>	<i>edu</i> , Assy.
	<i>adde</i> , Tigre
<i>katim</i>	<i>ahhdam</i> , Sabaean
<i>satu, sada</i>	' <i>aste</i> , Heb.
	<i>istin</i> , Assy.
<i>tasi</i>	cf. <i>edis</i> , „
<i>nehi</i>	<i>inek</i> , Shiho
<i>tika</i>	<i>toko</i> , Galla

For more, see below on the numeral 6.

### § 7. The Numeral 2.

Oceanic (see § 4, 2).

<i>mi, be (am)oi, (am)ooi</i>	cf. <i>huma</i> , Arabic
<i>(ab)oma (b)o, ua, (dal)uva</i>	cf. <i>hami</i> , Sabaean
<i>ohwa(t) (dal-uva, ohwa-t)</i>	
<i>malofa</i>	<i>malobo</i> }
<i>morua</i>	<i>maloob</i> } Bishari
<i>(da)luva, lua</i>	<i>lamma</i> , Shiho
<i>lhua, duwa</i>	<i>lebba</i> , Somaui
<i>duha</i>	<i>lumma</i> , Galla
	<i>lummeh</i> , Danakil

For more, see below on the numeral 7, and in § 17.

The Red Sea group agrees with the Oceanic, and differs from the literary Shemitic in using this dual pronoun, and with the article *l*, usually alone, but sometimes having the article *m* added to it ("The Compound Article," § 2), for the numeral 2. From §§ 13, 17 we see, however, that probably this was the original Shemitic numeral 2, and that the literary *shene* and *kelēe* are comparatively modern.

### § 8. The Numeral 3.

Oceanic (see § 4, 3).

*tola, tolu, telo*

*talū*

*othay, ti*

*esei-k, ti-ga*

*titu*

*thol*

*selu*

*re-oe, k-uay*

*etirom*

*s-ales, Ethiopic,*

*tela, Mod. Syr.*

*thali* (third), Arabic

*adda, Shiho*

*tata'ah, Sokotra*

*tholth, Syriac*

*shelosh, Heb.*

*mi-h, mi-hay, Bishari*

*taltam, Sabaean*

For more, see below on the numeral 8.

### § 9. The Numeral 4.

Oceanic (see § 4, 4).

*riha*

*enpa, ampah, appa*

*uppah, fa*

*effat, apat*

*paat, bāte*

*haan*

*fum*

*veri, fir*

*tigai, tiak*

*aru-t, Amharic*

*arba', Heb.*

*ubah, Arkiko*

*erbahte, Tigre*

*arbat, Sabaean*

*arban* „

*arbam* „

*fere, Danakil*

*uddig, fadyg, Bishari*

For more, see below on the numeral 9.

### § 10. The Numeral 5.

Oceanic (see § 4, 5).

*ikma* (for *kima*)

*im, in*

*khemah, Sokotra*

*heimish, khumis* „

*konoyou, kum, Danakil*

(in *kum-tum*, 50)

*kon, Shiho*

*khansa, Assy.*

<i>lib, tipi</i> ( <i>ib, ipi</i> )	<i>ib</i> , Bishari <i>amest</i> , Amharic <i>amoos</i> , Arkiko <i>alhams</i> , Arabic <i>shun</i> , Galla <i>shan</i> , Somauli ( <i>sum</i> , and <i>essam</i> , Bishari, in the word for 8, see below)
<i>lima, liema, lium</i> <i>djini</i>	

For more, see below on the numerals 6, 7, 8, 9.

### § 11. The Oceanic Numerals 6—9.

Malagasy.	Malay.	Papuan (Fatese).	Maori-Hawaiian (Samoan).
6. <i>enina</i> ( <i>eni</i> )	<i>anam</i>	<i>latesa</i>	<i>ono</i>
7. <i>fito</i>	<i>tujuh</i>	<i>larua</i>	<i>fitu</i>
8. <i>valo</i>	<i>dalapan</i> ( <i>salapan</i> )	<i>latolu</i>	<i>valu</i>
9. <i>sivy</i>	<i>sambilan</i>	<i>lifiti</i>	<i>iva</i>

1. All these Oceanic numerals are compound words, and the first part of the compound in every case is the numeral 5, or a fragment of it, with or without an article, the second or final part of the compound being the numerals 1, 2, 3, 4 (in 6, 7, 8, 9 respectively), of which 2 alone has sometimes the article *l* prefixed to it: thus 6 is *five-one*, 7 *five-two*, 8 *five-three*, and 9 *five-four*.

2. This is plain enough in the Papuan, but not so apparent in the other three branches. Hence even so able an investigator as Gabelentz deemed it peculiar to the Papuan numeral system, to which he gave the name of Quinary. It is in these Papuan numerals, with their transparent structure, that we get the clue to the exactly similar composition of the others, and that, as we shall see, with certainty. Fatese *latesa*, *larua*, *latolu*, *lifiti* are for *lima-tesa*, *lima-rua*, *lima-tolu*, *lima-bate*, as is proved by a comparison of dialects; thus, for instance, in the neighbouring island of Ambrym we have 1 *hu*, 2 *ru* (*lo*), 3 *sul* (*sī*), 4 *vit* (*fir*), 5 *lim*, which compounded give 6 *limse* (*livse*, *lise*, *luse*, *melipsies*), 7 *liuru* (*luru*, *melipo*), 8 *livsul* (*lisul*, *lusul*, *melipsī*), 9 *laifiet* (*rafet*, *lafar*, *liafer*, *meper*). Those enclosed in brackets are dialectical forms, and *melip* is for *melim*, Santo *molima* (§ 2, 7). *Melipo*, 7, is for *melim-ua*, the *ua*, 2, having no

article in this case, while it has the article *l* (*r*) in all the others. For another example see the Enganho numerals in Latham. In Yengen we have (article *n*) 5 *nim*, 6 *nimwet*, 7 *nimweluk*, 8 *nimweyen*, 9 *nimpobits*. In Fenua Galaia 5 *djini*, 6 *tchouo*, 7 *tembi*, 8 *ta*, 9 *toudjo*, in which note the *ou* is French, and the article is *s* changed to *dj*, *tch*, and *t*.

In these Fatese and Ambrym numerals the word 5, *ima*, to which the article *l* is prefixed is changed or corrupted into *a*, *u*, *i*, *v*, and *p* (*lu*, *li*, *liv*, *lip*, *la*). This brings us to observe that the first part of the numerals 6-9 is sometimes this word for 5 without the article. Thus to take Api, the island that lies between Fate and Ambrym, we find 1 *tai* (*ta*), 2 *tshua*, 3 *tolu*, 4 *beri*, 5 *tshima*, which compounded give 6 *ari* (*ora*), 7 *alua* (*olua*), 8 *arolu* (*orolu*), 9 *koveri* (*overi*), 10 *ruelma*, 20 *twelvalua*. In these *ima*, 5, is corrupted to *a* and *o*: *k* in *koveri* is an article (§ 2). Note, *tshua* and *tshima* (in neighbouring dialect *sima*) are for *lua* (*tua*) and *lima* (*tima*), as is proved by the words 7, *a-lua*, 10, *ruelma* (*rue lima*), and 20, *twelvalua* (*tue lima lua*). This change of *l* (through *t* or *d*) to *tsh* is found also, as will be seen, in Malay 7, *tuju* (*ju* for *duwa*, 2). In a Malli-collan dialect in Gabelentz and Latham we have 1 *sikai*, 2, *e-ua*, 3 *e-roï*, 4 *e-vatz*, 5 *e-rima*, which compounded give 6 *su-kai*, 7 *whi-u*, 8 *o-roï*, 9 *whi-vatz*; in another dialect these are 7 *wiu*, 8 *woroi*, 9 *obats*. In Bauro these are 7 *biu*, 8 *waru*, 9 *siwa*; in Marata 7 *fiu*, 8 *wharu*, 9 *tiwha*; in Fiji 7 *vitu*, 8 *walu*, 9 *thiwa*; and in Maori 7 *whitu*, 8 *waru*, 9 *iwa*; with all which the Malagasy and Samoan are identical. As to *sivy* (for *sim-vy*) it is *iva* (for *im-va*) with the article *s*, just as Fate *lifiti* is Mallicollo *whivat* with article *l*, and Api *koveri* for *kim-veri* (Ambrym *lafar*, for *lim-far*), the same with article *k*. Celebes *kasa* and Sumatra *sakoorang* have both these articles *s* and *k*, and the latter is for *sekim-verang*, the final *ng* being the emphatic (for *n*) as in Malay *sambilan*, Java *sanga*. Forrest's Papuan (N. G.) has *sio*re (for *sim-veri*). With Malagasy *sivy* are identical Amboyna *siwa*, *sia*, Savu *sioh*, Ternati *siyu*, Celebes *sio*, Sula (*ga*) *tasia*, Fenua Galaia *toudjo*, Bouru *eshia*, *chia*, Santo *tshiwa*, Tagala *siyam*, Bisaya *siam*, Java *sanga*, Mysol *si*, *sin*, New Ireland *suok*.

4. Let it be noted that Bauro *biu*, Marata *fiu*, Mallicollo *whiu*, 7, have *u*, for *ua*, 2, without the article; and that Maori *whitu*, Malagasy and Samoan *fitu*, New Guinea (Marsden) *fita*, 7, have *tu*, or *ta*, for *tua* (for *lua*), or *ua*, 2,

with the article : that is, the sole difference between them is, that in the final part of this compound word the former have *ua*, 2, *without*, the latter have it *with* the article.

So Vanikoro *tembi* (for *sembi*), Taneanu and Fenua Galaia *timbi* (for *simbi*), Malay dialect *toufou*, Arru *dubem*, Tanema *roumbi* (for *lumbi*), Tembora *kumba*, 7, all have the same word, *ua*, for 2, as *bi*, *be*, *ba*, in the final part of this compound word, *without* the prefixed article.

5. The word 6, Samoan *ono*, is *o*, 5, as in Api *ora*, and *no*, 1, as in Api *ra*. Forster gives Friendly Islands *vano*, 6, where *va* (for *ma*, 5), as in *valu*, *varu*, 8. And both Samoan *no* and Api *ra* are phonetic variations of *sa*, 1, as also is the *ta* in Paama *hitai*, 6, Gilolo *butanga*, Tembora *bata-in*, and the *to* in New Guinea (Amberbaki) *ebetoe*, and the (final) *ra* in Ternati *rara*, Tidore *rora*, and the second *lo* in Pelew *lolom*, *malong*, and *l* in Caroline *hol*, and *no* in Bugis *onong*, 6. In the Laman dialect of Api we have *saka*, 1, and *oraka*, 6. In Malagasy *eni-na*, and Malay *ana-m*, the finals *na* and *m* are emphatics (see § 2, 2, 3), and *eni* and *ana* are identical with Samoan *ono*, Tongan (above) *vano*. That the *ni* of *eni*, *na* of *ana*, *no* of *ono*, is for *sa*, 1, by the change of *s* to *n*, compare New Ireland *lon* with Ambrym *lise*, *luse*, 6.

6. It only remains to explain Malay *tuju*, *delapan* or *salapan*, and *sambilan*, 7, 8, 9. We have seen, above, *l* and *s*, for instance, in *sivy*, *lifiti*, used as articles with the Oceanic numerals.

In Malay *tuju*, 7, the initial *t* is either this *s* or *l*, probably the *s*: in that case *tuju* is for *sudu* (Madagascar *sidda*, *titou*), for *sum-duwa* (Tarnati *tomdi*, Tidore *tumodi*), as Ambrym *luru* is for *lim-rua*. See above (3), Api *tshua* for (*tua*)*lua*.

Malay *delapan*, 8, is for *delima-n*. Compare Salibabo *delima*, 5 (see § 2, 5). The *n* stands for the *l* of *tolu*, 3, by the change of *l* to *n*. That this is so compare Savu *panu*, 8 (*tanu*, 3), where *panu* is manifestly the common Oceanic *varu*, 8. In Atshin (Sumatra) we have *lappan*, for *laman*, 8.

*Varu*, 8, is for *ma-lu*, Easter Island and Friendly Islands *varoo*, Papua (N. G.) *war*, Lombok *balu*, Caroline *wal*, *wan*, Tarawan *oanu*; Gilolo *itupangi* (for *itumani*); in Kayan *saya*, Fenua Galaia *ta*, all that remains of the words for "five-three" is in the one case *aya*, in the other *a* attached to the article *s* (*t*), and even this is equalled by Harar *sut*, for which see below, § 13, 3.



Malay *sambilan*, 9, is, by change of *t* to *l*, for *sambitan*; cf. Segaar *sapuli*, Onim *saputi*, 9. The final *n* of *sambilan* is an emphatic (see § 2, 2). Onim *saputi* is for *sam-puti*, as Fate *lifiti*, is for *lim-fiti*, and Malay *sam-bilan* for *sam-bitan*, all equally being "five-four," or 9.

§ 12. Turn now to the Red Sea group. The Bishari has 1 *engat* (*engaro*), 2 *maloob* (*malobo*), 3 *mih* (*mehay*), 4 *uddig* (*fadyg*), 5 *ib* (*eyyib*), which compounded give 6 *sugoor* (*assagour*), 7 *seramab* (*essarama*), 8 *sumhai* (*essambay*, *essamb-ay*), 9 *shedig* (*ogamhay*). For the first five of these see above, §§ 6-10. The *b* (for *m*) in *seramab*, 7, is emphatic (§ 2), and *rama* is identical with *loob*, 2, originally *looma*, i.e., *luma*. The *goor* of *sugoor*, 6, is identical with the *gat* of *engat*, 1; the *hai* of *sumhai*, 8, with the *h*, or *hay*, of *mehay*, 3; and the *dig* of *shedig*, 9, with *uddig* (*fadyg*) 4 (for the final *g*, see § 2, 4, and § 9). Here then we have exactly the same system as the Oceanic, § 11, and the article *s* is the same as the Oceanic article *s*, § 11; even as in *ogamhay*, 9, we have the same article *k* as in *Api koveri* (for *kam-veri*) 9. In Galla 6 is *ja*, or *dzha*. In Danakil and Shiho 6 is *leheye*, *lelehe*, *leh*; 7, *melhene* for *ma-lhama* (Java *petu* for *me-luma*); 8, *bahara*, *vahr* (Friendly Islands *varoo*, New Guinea (Forrest) *war*); 8, Bishari is *sumhai* (*kai*, 3), and Somauli sedeid, for *sem-deid* (*sudde*, 3). For 9 we have in Danakil *segala*, compare Sumatra *sekuru-ng*. Thus in the Red Sea group we have in the first part of the compound words for 6-9 the articles *l*, *s* (*t*), and *g* (*k*), and only in the Danakil and Shiho 7 and 8 no article. But in this group in the compound word for 7 the final part, or word for 2, is never without the article: thus Somauli *t'dubba* (*te-luma*), Galla *toorbah* (*tu-luma*), and Shiho *melhen* (*me-lhama*), 7.

The literary Shemitic words for the numerals 6-9 are compounded like those of this Red Sea group and the Oceanic. In Ethiopic we have them as—6 *sedes* (Heb. *shesh* is a phonetic corruption for *shedesh*, Arabic *sit* for *sides*), 7 *seb'e*, 8 *seman*, 9 *ts'e*, and in Sokotra 6 *yitah*, 7 *yibi'ah*, 8 *tamani*, 9 *sa'ah*.

Carefully noting whether the article is the same or different, compare—

6	Fate	<i>la-tes</i> ,	with <i>se-des</i>
6	Ambrym	<i>lise</i> ,	with <i>shesh</i>
7	Vanikoro	<i>tembi</i>	with <i>seb'e</i>

7	Arru	<i>dubem</i> ,	with <i>sabam</i> , Sabaeen
8	Gilolo	<i>itupangi</i> ,	with <i>tamāni</i>
9	Celebes	<i>sio</i> ,	with <i>sa'ah</i>

Thus in the compound words for 6-9 the literary Shemitic uses only the articles *s* and *t*, while the Oceanic and Red Sea group use other articles, as *l* and *k*, as well as *s* and *t*. The difference between *la-tes* and *sedes* is simply that of the two mutually equivalent articles *s* and *l*; while *tembi* (*sembi*), and *sebe* (*sebbe*), *itupangi* (*itumani*) and *tamani*, and *sio* and *sa'ah* are absolutely identical (if we except slight phonetic changes), and have even the same article. In the word for 7 the literary Shemitic differs from the Red Sea group, and agrees with some of the Oceanic dialects (see § 11, 4), in never using the article with the word for 2 in the final or second part of the compound. This final part is *be* in Ethiopic *sebe*, and *bi* in Vanikoro *tembi*, identical with Samang *be*, Karon *we*, Tongan *ua*, Tanna *-u* and *mi*, Aneiteum *-o*, and *ohwa-t*, Tagala *-uva*, Papua Kowiay *-oma*, and Mallicollo *ua*, and *va(-n)*, 2.

§ 13, 1. The Numeral 6. See § 4, 1, § 6.

With a prefixed article the same or different.

§ 11—

<i>lates</i> ( <i>lim-tes</i> )	<i>sedes</i> , Eth.
<i>lise</i> , <i>rora</i> , <i>rara</i>	( <i>sem-des</i> )
<i>tchouo</i>	<i>shesh</i> , Heb.
	<i>dzha</i> , Galla
<i>su-kai</i> ( <i>sum-kai</i> )	<i>suggoor</i> , Bishari
	( <i>sum-gat</i> )
<i>lolom</i> ( <i>lim-lo-m</i> )	<i>lelehe</i> , Danakil
	( <i>lem-lehe</i> )
	<i>leh</i> , Shiho

Without a prefixed article.

§ 11.—

<i>hitai</i> , <i>oroi</i> , <i>ora</i> , <i>ari</i> ( <i>ima-tai</i> )	<i>yitah</i> , Sokotra
	( <i>yima-tah</i> )
<i>ebetoe</i> , <i>bata-in</i> , <i>butanga</i>	
<i>malong</i> , <i>hol</i> , <i>vano</i>	Same as Arabic, only wanting
<i>onong</i> , <i>ono</i> , <i>eni</i>	initial <i>s</i>
<i>enina</i> , <i>anam</i>	

2. The Numeral 7. See § 4, 2, § 7.

a. The first part of the compound with, the second without, a prefixed article.

§ 11.—

<i>tembi</i> ( <i>simbi</i> , <i>sim-uma</i> )	<i>siba</i> , Assy. ( <i>simba</i> , <i>sim-uma</i> )
<i>timbi</i>	<i>sebe</i> , Eth.
<i>dubem</i>	<i>sabam</i> , Sabaean
<i>sik</i> (§ 2, 4)	<i>sate</i> (§ 2, 5), Harar
	<i>sho'a</i> , Mod. Syr.
	<i>sua</i> , Ehkili
<i>roumbi</i> (for <i>lumbi</i> )	
<i>kumba</i>	

b. The second part of the compound with, the first without, a prefixed article.

§ 11.—

<i>fito</i> , <i>fitu</i> , <i>fita</i> , <i>petu</i> (Java)	<i>melhene</i> , Danakil
(for <i>me-luma</i> )	<i>melhen</i> , Shiho (for <i>melhem</i> , for <i>me-lhuma</i> ), cf. Savu
	<i>lhua</i> , 2

c. Both parts of the compound without a prefixed article.

§ 11.—

<i>biu</i> ( <i>ima-uma</i> )	<i>yibi'ah</i> , Sokotra
<i>fiek</i> , <i>fiet</i> (§ 2, 4, 5)	( <i>ima-uma'ah</i> )
( <i>ima-umak</i> , and <i>ima-umat</i> )	This is same as Arabic, only wanting initial <i>s</i>

d. Both parts of the compound with a prefixed article.

§ 11.—

<i>sidda</i> , <i>titou</i>	<i>t'dubba</i> , Somauli
<i>tuju</i> , <i>tomdi</i> , <i>tumodi</i>	<i>toorbah</i> , Galla
(for <i>sim-luma</i> , or <i>sum-</i> <i>luma</i> )	<i>seramab</i> } Bishari
	<i>essarama</i> }
	(for <i>sim-luma</i> , or <i>sum-luma</i> )

## 3. The Numeral 8. See § 4, 3, § 8.

## § 11.—

## a. With prefixed article.

<i>itupangi (itum-ani)</i>	<i>themanian</i> , Arabic ( <i>them-anian</i> )
	<i>tamāni</i> , Sokotra
<i>saya, ta</i>	<i>sut</i> , Harar
<i>lappan (lim-an)</i>	<i>sumhai</i> , Bishari
<i>delapante</i>	<i>shumunte</i> , Tigre
<i>(delam-ante)</i>	(With B. <i>hai</i> , 3, cf. Mairassi <i>aai</i> , 3, in <i>ivor-aai</i> , 8).

## b. Without prefixed article.

<i>varoo, war, baloo, ual,</i>	<i>bahara</i> , Danakil
<i>wan, oanu, panu</i>	<i>vahr</i> , Shiho (for <i>ima-hara</i> ,
(for <i>ima-lu, orima-alu,</i>	<i>ima-ahr, ahr</i> for “ <i>adda</i> ,”
the <i>lu</i> becoming <i>ru,</i>	3; and compare Tanna ka
<i>nu, l, r, and n; lu</i> is	<i>har</i> , 3, for, as it is in another
for <i>tolu, selu, 3)</i>	Tanna dialect, ki, <i>sil</i> , 3)

## 4. The Numeral 9. See § 4, 4, § 9.

## § 11.—

<i>chia, tshiwa</i>	<i>tsha</i> , Syriac
<i>tasia, toudjo (tudjo)</i>	<i>tesha</i> , Heb.
<i>eshia</i>	<i>itshi, itsha</i> , Mod. Syr.
<i>si, sio, sia, sioh, siyu,</i>	<i>sa'ah</i> , Sokotra
<i>kasa</i>	
<i>sin</i>	<i>zeythan</i> , Harar
<i>sanga</i>	<i>zatang</i> , Amharic
<i>siyam, siam</i>	<i>tesam</i> , Sabaean
<i>suok</i>	<i>shedig</i> , Bishari
<i>(sim-vak)</i>	<i>(shim-fadig)</i>
<i>sapuli, siore, sakoorang</i>	<i>segala</i> , Danakil
<i>(sekim-verang)</i>	<i>(segim-vela)</i>
<i>sambilan, saputi</i>	
<i>koveri (kim-veri)</i>	<i>ogamhay</i> , Bishari (cf. Sa- parua <i>haä</i> , 4)
<i>lifiti (lim-fiti)</i>	
<i>lafar (lim-fir)</i>	
<i>iva (ima-va)</i>	
<i>whivatz (ima-vatz)</i>	

## § 14. The Numeral 10.

1. In the Shemitic and Oceanic the word for 10 is a word originally meaning the whole, the completion, combination or sum, and then the same in reference to the digits, that is, 10. For exceptions to this, see 6 below.

2. The one word used for 10 in the literary Shemitic is (*'asar*, "combination") in Hebrew *'asar*, Syriac *'sar*, 10. This in modern Arabic is found as *asher* and *ash*, and in Harar as *assir* and *asse*. In Matabello *sow* is 10, but in *terwahei* 11, *ternorua* 12, *teranrua* 20, *terantolu* 30, the word for 10 is *ter*, which is perhaps for *ser*, cf. Syriac *'sar*, 10; compare Tem-bora *sarone*, Mangarei *туру*, 10; and also, perhaps, Uea *ach*, 10, in the numerals 11–15.

3. The common word for 10 in the Red Sea group is in Shiho *tummun*, *tamum*, *tan*, *tun*, in Danakil *thubban*, *tum*, and *tunna*, *tubban*, *tun*, Bishari *tummun*. This is the word which is in Arabic *tamam*, "integer, completus numero," and *tam*, and *tum*, "perfectio, finis, complementum," the verb being *tamma*, "totus, integer, perfectus" (Freytag); in fact, it is probably the Arabic word.

Fiji *tini*, Ceram *tinein* (*tine-in*), 10 (note the change of *m* to *n*, as in the Red Sea group), are of the same origin as the Arabic.

4. The common Oceanic word for 10 is in Malay *sapuluh*, Samoan *sefulu*, Malagasy *folo*, Philippines *apalo*, Sanguir *kapuroh*, Salibabo *mapuroh*, Sula *poha*, Savu *bo*, Mysol *lafu*, Matabello *sow* (for *safu*), Ceram *opooloo*, *hutu*, *fotusa* (= Malay *balas*), *vuta*, *ocha*, *husa* (with this compare Uea *ach* in 2 above), Rotti *hulu*, Timuri *nulu*, Madagascar *nel*, Pome *awrah*, Moor *toverah*, Seroci *soerat*, Ansoes *hoera*, Dasin *arisa*, Papuan *samfoor*, Mindanao *sanpoolu*, Santo *sinafulu*, *sabulu*, *sanafuru*, Marata *tangafuru*, Aoba *hangafulu*, Mallicollo *hangafulu*, *sangafur*, *sangaful*, *singeab*, *singab*, Ambrym *sanghul*, *sangul*, *songapi*, Santo *ulatea* (tea=1), Pentecost *siamnoh*. In this word is clearly seen the disguising effects mentioned in § 3; and it will be observed that all the articles in § 2 are used with this word in the examples just given.

The Malay *puluh*, 10, compared with *bulah*, "the whole" (Crawford, "Malay Dict."), and Tongan *fulu*, 10, compared with *fuli*, "all, in number not mass, or quantity of bulk" (Mariner, "Tongan Dict."), show that this word used for 10 originally meant "all," or "the whole," that is, the sum, then

10, the whole or sum of the digits. Of course, it might, if so used, mean *any* sum; and for examples of its denoting other sums, namely, 100 and 10,000, see § 15. This word *puluh*, *palc*, is in Arabic *bulugh* or *bulu'*, "perfectio," *balugh* or *balu'*, "summa (idiom. vulg.)," *mabelagh*, or *mabla*, "summa quae oritur ex addendio numeris vel multiplicandis," the verb being *bala'*, "pervenit, contigit terminum propositum . . . consummatus fuit, pervenit ad finem" (Freytag); that is, the Arabic word means the consummation or completion or the whole or the sum obtained by adding or multiplying, and might therefore denote any sum, see § 15.

5. In like manner the word *uma*, "all," in Samoan, is in Hawaiian, as *umi*, 10. The word *manu* in Fatese a multitude, or 1000, Samoan a "myriad," or 10,000, in Guham, as *manud*, is 10. The word *ulu* in Tongan and Malay "head," is in Tongan also 10. In Duauru 10 is *deka*, of which Gabelentz says that it "ist das polynes *tekau* (zehn Paar)". The fact is, however, that *te* (*de*) is the article, and *kau* means "multitude" or "a mass." Hence in Fatese with article *m*, in one dialect, as *umkau*, it means "all," "the whole," in another, as *makau*, "a bunch or cluster" (of fruit, as nuts). In Tongan it is a sign of the plural number. In Samoan as '*au*, it is "a bunch, a troop, a gang, a shoal." In Tongan *tekau* is "a score," or 20, while in Maori, as in Duauru, it is 10.

6. In some Oceanic dialects 10 is expressed by "two-fives," or "two-of-five," as Fate *ruelima* (*rua*, 2, *lima*, 5), Lifu *luepi* (*lua*, 2, *ipi*, 5) Paama *ha lua lim*. Aneiteum *nikman ero* is "his two hands." Tanna *karilum karilum* is literally (*kari* for *kadi*) "one-five one-five," or "five five."

Notwithstanding, the Fatese numeral system is as thoroughly *decimal* as the Malay or even the English.

### § 15. The Numerals 100, 1000, &c.

The word in Malay *sapuluh*, in Moor *toverah*, 10, is in Fate *tifili*, 100, in one dialect, 10,000 in another. With this compare Danakil and Shiho *bōl*, 100. Malay *ribu*, Java *ewu*, Santo *riwun*, Malagasy *arivo* (compare Malagasy *arivoarivo*, "innumerable"), 1000, is evidently like the Fatese and Tongan *manu*, or *mano*, 1000, Samoan 10,000, originally a multitude, large number, or "myriad." Compare Hebrew *ribo*, Syriac *rebu*, "a myriad." Samoan and Tongan *afe*, 1000, is to be compared with Hebrew *alef*,



Arabic *alf*, Ehkili *of*, 1000. This word in Ethiopic is 10,000. It originally denoted a multitude or large number.

§ 16. The Malay and Fatese ordinals are formed by prefixing to the cardinals the article *ka*, as *ka lima*, Malay and Fatese, "fifth"; Amharic and Eromangan effect the same by suffixing the demonstrative *ng*, as Amh. *andanga*, Ero. *saiungi*, "first," Amh. *sostanga*, Ero. *deselungi*, "third." The expressions "once," "twice," "thrice," or "a third time," &c., are formed in many Oceanic dialects by prefixing to the numerals *ba*, or *va*, or *baka* or *vaka*, as Api *fatai*, *valua*, *varelu*, *vaveri*, &c., Paama *varais*, *valua*, *vatolu*, *vahati*, *valima*, &c., Mallicollo *faksoka*, *fakaru*, *fakatir*, *fakabit*, *fakarim*, &c., Fiji *vakadua*, *vakarua*, *vakatolu*, &c., Fate *bakatolu*, or *fakatolu*, &c., Samoan *faatolu*, &c. In Malagasy as *faha* (for *faka*) we have it in *faharoa*, *fahatelo*, &c., for the ordinal 2nd, 3rd, &c. Now leaving out the *ka* (to be explained in another paper), we have *ba*, or *va* (sometimes used without the *ka*), which is found similarly used in Ethiopic as  $\cap$ , *ba*, thus in the Gospel by Luke, xxiii. 22, for Greek  $\tau\pi\tau\omicron\nu$ , there is in the Ethiopic Version *basales*, in the Fiji Version *vakatolu* (cf. Api *vatolu*). In the Tigre Version it is *abesalesai*, the initial *abe* being for the Ethiopic *ba*. The identity of the Ethiopic (*sales*) and Oceanic word (*selu*, *tolu*) for 3 has been shown above, § 8; and it is certain that this prefixed *ba*, Tigre *abe*, Fiji, &c., *va*, *ba*, are the same particle of the same origin, though the full proof must be reserved till the Prepositions come to be discussed. In the meantime it may be pointed out that this implies, what will be fully shown in the proper place, that one of the most essential particles of the Shemitic languages, the much and variously used preposition  $\cap$ ,  $\underline{\cap}$ ,  $\vee$ , &c., (*b*, *v*); and one of the most essential of the Oceanic particles *ba* or the *ba* in *baka*, used not only with the numerals as above, but in other ways, and particularly in forming the so-called causative (Fiji *vaka*, Fate *baka* and *faka*, Mahaga *va*, Duauru *ve*, Lifu *a*, Samoan *faa*, Aneiteum *imi*, Eromangan *ampi*, Malagasy *ampi* or *mpi*, &c., &c.), are identical as of the same origin.

§ 17. As to the origin of the Shemitic numerals, it may be added to what has been already said that *shenaim* and *kelēe* mean 2, only because of the dual ending attached (*a*) to them, and that as this dual ending was used in the Shemitic languages attached to *huma*, "they-two," at least

before it was used attached to these two words, they must be held as comparatively modern. The Shemitic *lham-s*, 5, is connected with *qometz* (Hebrew) "fist," as Bisayan (*l*) *ima*, 5, with *camot*, "hand," see § 4, 5.

§ 18. The foregoing does not profess to be a complete exhibition of the subject of which it treats, though sufficiently so to show that the Oceanic numeral system and numerals are Shemitic.

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## APPENDIX ON THE AUSTRALIAN AND TASMANIAN NUMERALS.

In some Australian dialects there are separate words only for 1 and 2, exactly as in Torres Straits and on the adjacent coast of New Guinea; in some for 1, 2, and 3; and in some for 1, 2, 3, 4, and 5. But it may be laid down as a general rule that, as in Oceanic, these separate words are the same everywhere, in so far as they are found used. The following five comparative tables are designed to *prove* these separate Australian numeral-words identical with the Oceanic. The Oceanic words which are compared in the tables are the same as those explained in the foregoing pages, and reference to those pages will explain every question that can arise regarding them. The only question that can arise as to the Australian here compared, which fairly and fully represent the numerals of the whole Australian group, is as to the prefixes and postfixes attached to them, and all that seems necessary to say in this place is that they are manifestly identical with the corresponding Oceanic prefixes and postfixes pointed out in § 2, and for the most part also seen actually attached to the Oceanic words in the following tables:—

### The Numeral 1.

Oceanic.	Australian.
Mallicollo, <i>bokol</i>	Lake Macquarie, <i>wakol</i>
Middleburgh, N.G., <i>mele</i>	Kamilaroi, <i>mal</i>
Seroci, N.G., <i>boiri</i>	Omeo Tribe, V., <i>boor</i>
Eddystone, <i>kamee</i>	Port Lincoln, <i>comia</i>
New Britain, <i>kapeau</i>	Wimmera, V., <i>keyap</i>

Oceanic.

Maramasiki, *mora*  
 N. Caledonia, *walait*  
 Manatoto, *nehi*  
 Tanna, *riti*  
 Maclaycusti, N.G., *kukun*  
 Tanema, *kero*  
 Malagasy, *iraika*  
 Sula, *hia*  
 Pelew, *tong*

Australian.

S. Tasmania, *marrawah*  
 Van Dieman Gulf, N.A., *warat*  
 Murray River, Echuca, *enea*  
 Port Essington, N.A., *erad*  
 Swan River, W.A., *gyn*  
 Moreton Island, *karawo*  
 Terrutong, *roka*  
 Lower Goulburn, *eya*  
 Wollondilly River, *medung*

The Numeral 2.

Guebe, *pilou*  
 N. Caledonia, *waroo, paroo*  
 N. Caledonia, *puaru*  
 Seroci, N.G., *boroe*  
 Lifu, *luete*

Swan Hill, V. *polay*  
 Adelaide, *purlai-tye*  
 Border Town, *pulla-k*  
 S. Tasmania, *pooalih*  
 Wannon, V., *bolate*  
 Moreton Bay, *bulla*  
 Wellington, N.S.W., *bula*  
 Lake Macquarie, *buloa-ra*  
 Raffles Bay, *orica*  
 King George's Sound, *kadie-n*  
 Tarpeena Tribe, *bowait*

Madagascar, *rica*  
 Ansus, *kodu*  
 Aneiteum, *ohwat*

The Numeral 3.

Java, *talu*  
 Savu, *tanu*  
 N. Caledonia, *wateen*  
 N. Caledonia, *kartien*  
 N. Caledonia, *puartien*  
 Guebe, *pitoul*  
 Sula, *gatil*  
 Enganho, *agoloe*  
 Astrolabe, N.G., *alub*  
 Waigyu, *kioro*  
 Tanna, *kahar*; Arfak, *kar*

S. Tasmania, *talleh*  
 King George's Sound, *taan*  
 Moreton Island, *madan*

Moreton Bay, *mudyen*  
 Peel River, *purla*  
 W. Australia, *ngarril*  
 Wollondilly River, *colluerr*  
 Kamilaroi, *guliba*  
 Lake Macquarie, *ngoro*

The Numeral 4.

Ambrym, *veri, fir, vier*  
 Api, *vari, bere*  
 Papua Kowiy, *aivcera*  
 Ebon, *emer*  
 Segaar, *fala*  
 Enganho, *aopa*  
 Sumatra, *ampe*

Wollondilly River, *borre*  
 E. Australia (Threlkeld), *wara*  
 River Peake Tribe, *merrie*  
 S. Tasmania, *wullyava*  
 Port Lincoln, *wema*

The Numeral 5.

Amberbaki, N.G., *mer*  
 Omar, *matisi*  
 Uea, *thabumb*  
 (for lima-m)

S. Tasmania, *marah*  
 Lachlan (Regent River), *matto*  
 Cape York Tribe, N.A., *tabama*

These words all radically mean "hand," and they are all the same, though disguised by prefixes, postfixes, and phonetic change, see § 3. Compare Api *ma* = Peel River *ma* = "hand." As to *marah* 5, the commonest Australian form of the word for "hand" is *m-r*. Major Mitchell observes that when the natives of Regent River gave him *matto* for 5, they held up the fingers. At the same place *matto matto* is 10, with which compare Tanna *kirilum kirilum* 10, see § 14, 6.

In conclusion, it seems certain that the Australian and Tasmanian numeral-words are Oceanic. The wider question as to the relationship between the Australian group of dialects and the Oceanic could not with propriety be entered upon here, but may be best entered upon from the solid foundation thus laid as to the numerals.

ART. II.—*Descriptions of New, or Little Known,*  
*Polyzoa.*

PART X.

BY P. H. MACGILLIVRAY, M.A., M.R.C.S., F.L.S.

[Read 11th March, 1886.]

*Family* CATENICELLIDÆ.

*Catenicella urnula*, n. sp. Pl. I., fig. 2.

ZOECIA vase-shaped; mouth slightly hollowed below; anterior surface with seven large shallow fenestræ; lateral processes large, erect, sharply pointed, frequently a small avicularium on the front of one or both, a shallow hollow on the superior surface. Posterior surface with a narrow, vertical, thickened band, from which two processes extend on each side to the margin of the cell, leaving shallow depressions.

Port Phillip Heads, Mr. J. B. Wilson.

This species, of which I have only seen one small fragment, probably attains a considerable size. It is allied to